

Ser. No. 09/836,501
Response dated October 24, 2003
Reply to final Office Action of May 22, 2003

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. - 7. (Cancelled)

8. (previously presented) A method of operation for an end user's computing device that provides navigation-related services to the end user, the method comprising:
with the end user's computing device, establishing a wireless communications link with a remotely located navigation services provider; and
obtaining wireless navigation services coverage data from said remotely located navigation services provider, wherein said wireless navigation services coverage data indicate areas in which navigation-related data from the navigation services provider are unavailable wirelessly.

9. (previously presented) A method of operation for an end user's computing device that provides navigation-related services to the end user, the method comprising:
with the end user's computing device, establishing a wireless communications link with a remotely located navigation services provider; and
obtaining wireless navigation services coverage data from said remotely located navigation services provider, wherein said wireless navigation services coverage data indicate areas in which navigation-related data from the navigation services provider are available wirelessly.

10. (previously presented) The method of Claim 8 or 9 further comprising:
using the wireless navigation services coverage data to indicate on a display screen of said end user's computing device areas in which navigation-related data from the navigation services provider are available wirelessly.

Ser. No. 09/836,501
Response dated October 24, 2003
Reply to final Office Action of May 22, 2003

11. (original) The method of Claim 10 wherein said areas in which navigation-related data from the navigation services provider are unavailable wirelessly are indicated by color coding.

12. (original) The method of Claim 10 wherein said areas in which navigation-related data from the navigation services provider are unavailable wirelessly are indicated by hatching.

13. (original) The method of Claim 10 wherein said areas in which navigation-related data from the navigation services provider are unavailable wirelessly are indicated by boundaries.

14. (previously presented) The method of Claim 8 or 9 further comprising:
using the wireless navigation services coverage data to indicate on a display screen of said end user's computing device areas in which navigation-related data from the navigation services provider are unavailable wirelessly.

15. (previously presented) The method of Claim 8 or 9 further comprising:
using the wireless navigation services coverage data to provide a warning that the end user is leaving an area in which navigation-related services are available wirelessly.

16. (original) The method of Claim 15 wherein the warning is provided audibly.

17. (original) The method of Claim 15 wherein the warning is provided visually.

18. (original) The method of Claim 9 further comprising:
restricting selection of destinations to those located in said areas in which navigation-related data from the navigation services provider are available wirelessly.

Ser. No. 09/836,501
Response dated October 24, 2003
Reply to final Office Action of May 22, 2003

19. (original) The method of Claim 8 or 9 further comprising:
restricting calculation of routes to limit crossing into areas in which navigation-related data from the navigation services provider are unavailable wirelessly.

20. (currently amended) A method of operation for a computing device that provides navigation-related services to an end user, the method comprising:

while the computing device is located in a first area in which navigation-related data are available wirelessly from a remotely located navigation services provider, establishing a wireless communications link with the remotely located navigation services provider; and

prior to leaving said first area, downloading navigation-related data for a second area located outside said first area, wherein navigation-related data are not available wirelessly from the remotely located navigation services provider in said second area.

21. (original) The method of Claim 20 further comprising:
using said data in said computing device to provide navigation-related services while said computing device is located in said second area.

22. (original) The method of Claim 20 wherein the data for the second area correspond to a destination to which the end user is traveling and which is located outside said first area.

23. (original) The method of Claim 20 wherein the data for the second area correspond to a portion of a route on which a vehicle in which the end user is located is traveling, wherein the portion of the route is located outside the first area.

24. (new) A mobile device that provides navigation-related services to an end user, comprising:

a memory for storing geographic data to provide navigation services and for storing wireless coverage data to identify a wireless coverage area; and

Ser. No. 09/836,501
Response dated October 24, 2003
Reply to final Office Action of May 22, 2003

a processor operatively coupled to the memory to wirelessly download geographic data and store the geographic data in the memory, wherein, when the end user uses the geographic data to travel to a destination, before the end user is expected to travel beyond the wireless coverage area, the processor wirelessly downloads sufficient geographic data for the uncovered wireless coverage areas through which the end user is expected to travel.

25. (new) A mobile device according to Claim 24, wherein the processor automatically downloads sufficient data for the uncovered areas through which the end user is expected to travel.

26. (new) A mobile device according to Claim 24, wherein after the processor downloads sufficient data for the uncovered areas through which the end user is expected to travel, the processor provides real-time features still that rely on the availability of data wirelessly using data that have been downloaded prior to leaving the wireless coverage area.

27. (new) A mobile device according to Claim 26, the processor provides the real-time features for a period of time until they become obsolete.

28. (new) A method of wireless end user navigation, comprising the steps of:
traveling to a destination; and

before an end user traveling to a destination is expected to travel beyond a wireless coverage area, wirelessly downloading and storing sufficient navigation-related geographic data for uncovered wireless coverage areas through which the end user is expected to travel.

29. (new) A method of wireless end user navigation according to Claim 28, wherein the step of wirelessly downloading and storing automatically downloads sufficient data for the uncovered areas through which the end user is expected to travel.

Ser. No. 09/836,501
Response dated October 24, 2003
Reply to final Office Action of May 22, 2003

30. (new) A method of wireless end user navigation according to Claim 28, wherein the step of wirelessly downloading and storing geographic data for the uncovered wireless coverage areas downloads real-time features.

31. (new) A method of wireless end user navigation according to Claim 30, further comprising the step of relying on the downloaded real-time features for a period of time until they become obsolete.

32. (new) A method of wireless end user navigation according to Claim 28, further comprising the step of wirelessly downloading road segment data.

33. (new) A method of wireless end user navigation according to Claim 32, wherein the road segment data represents road segments beyond the available wireless coverage area.

34. (new) A method of wireless end user navigation according to Claim 32, wherein the road segment data includes information describing features of the represented road segments selected from the group consisting of: (1) segment data indicating restrictions, if any, on the direction of vehicular travel permitted on the represented road segment, (2) segment data that indicates a speed limit or speed category, (3) segment data indicating whether the represented road segment is part of a controlled access road, a ramp to a controlled access road, a bridge, a tunnel, a toll road, a ferry, (4) segment data having geographic coordinates of a represented road segment and (5) segment data indicating a postal zone or administrative zone in which the road segment is located.

35. (new) A method of wireless end user navigation according to Claim 28, further comprising the step of wirelessly downloading data that represent types of geographic features.

Ser. No. 09/836,501
Response dated October 24, 2003
Reply to final Office Action of May 22, 2003

36. (new) A method of wireless end user navigation according to Claim 28, further comprising the step of wirelessly downloading data that represents an arbitrary boundary.

37. (new) A method of wireless end user navigation according to Claim 28, further comprising the step of wirelessly downloading data that represents postal zones.

38. (new) A method of wireless end user navigation according to Claim 28, further comprising the step of wirelessly downloading data that represents administrative zones.

39. (new) A method of wireless end user navigation according to Claim 28, wherein the administrative zones are selected from the group consisting of countries, states, cities, counties, townships, and provinces.

40. (new) The method of Claim 20, wherein the step of downloading navigation-related data from said remotely located navigation services provider obtains road segment data.

41. (new) The method of Claim 40, wherein the road segment data represents road segments for the second area.

42. (new) The method of Claim 41, wherein the road segment data includes information describing features of the represented road segments selected from the group consisting of: (1) segment data indicating restrictions, if any, on the direction of vehicular travel permitted on the represented road segment, (2) segment data that indicates a speed limit or speed category, (3) segment data indicating whether the represented road segment is part of a controlled access road, a ramp to a controlled access road, a bridge, a tunnel, a toll road, a ferry, (4) segment data having geographic coordinates of a represented road segment and (5) segment data indicating a postal zone or administrative zone in which the road segment is located.

Ser. N . 09/836,501
Response dated October 24, 2003
Reply to final Office Action of May 22, 2003

43. (new) The method of Claim 20, wherein the step of downloading navigation-related data from said remotely located navigation services provider obtains data that represent types of geographic features.

44. (new) The method of Claim 20, wherein the step of downloading navigation-related data from said remotely located navigation services provider obtains data that represents an arbitrary boundary.

45. (new) The method of Claim 20, wherein the step of downloading navigation-related data from said remotely located navigation services provider obtains data that represents postal zones.

46. (new) The method of Claim 20, wherein the step of downloading navigation-related data from said remotely located navigation services provider obtains data that represents administrative zones.
